**ABSTRACT** 

## Channel Estimation in a Multi Carrier Transmit Diversity System

A method and a stage (60) for estimating channel coefficients in a multi carrier system operating in accordance with a block-code based transmit diversity scheme, in which a data content of a code matrix is multiplexed in a frequency domain are described. The method comprises determining a phase ramp ( $\varphi_{est}$ ) in the frequency domain or an equivalent ( $\Delta$ t) thereof in the time domain, the phase ramp ( $\varphi_{est}$ ) or the equivalent ( $\Delta$ t) thereof being comprised within a receive signal ( $\mathbf{Y}$ ) after timing synchronization, processing the receive signal ( $\mathbf{Y}_{\Delta t}$ ) to remove the phase ramp ( $\varphi_{est}$ ) or the equivalent ( $\Delta$ t) thereof and estimating the channel coefficients on the basis of the processed receive signal.

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(Fig. 11)

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